

**ABSTRACT**

**The present invention relates to and provides a fuel cell in which sealing can be reliably made for each unit cell, thereby, enabling thinning, facilitating maintenance, and enabling miniaturization and weight reduction, and enabling free shape design. A fuel cell of the present invention is characterized by comprising a sheet-like solid polymer electrolyte 1 and a pair of electrode plates 2, 3 arranged on both sides of the solid polymer electrolyte 1, and further comprising a pair of metallic plates 4, 5 arranged on both sides of the electrode plates 2, 3, and provided flow path grooves 9, and inlets 4c, 5c and outlets communicating with the flow path grooves, wherein the peripheral edges of the metallic plates 4, 5 are mechanically sealed with an insulation material 6 interposed between the metallic plates.**